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BAI1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8170a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	O14514
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB02096
Calculated MW	173501
Antigen Region	1537-1567

Additional Information

Gene ID	575
Other Names	Brain-specific angiogenesis inhibitor 1, BAI1
Target/Specificity	This BAI1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1537-1567 amino acids from the C-terminal region of human BAI1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	BAI1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ADGRB1 (HGNC:943)
Function	Phosphatidylserine receptor which enhances the engulfment of apoptotic cells (PubMed:24509909). Also mediates the binding and engulfment of Gram-negative bacteria (PubMed:26838550). Stimulates production of

	reactive oxygen species by macrophages in response to Gram-negative bacteria, resulting in enhanced microbicidal macrophage activity (PubMed:26838550). In the gastric mucosa, required for recognition and engulfment of apoptotic gastric epithelial cells (PubMed:24509909). Promotes myoblast fusion (By similarity). Activates the Rho pathway in a G protein-dependent manner (PubMed:23782696). Inhibits MDM2-mediated ubiquitination and degradation of DLG4/PSD95, promoting DLG4 stability and regulating synaptic plasticity (By similarity). Required for the formation of dendritic spines by ensuring the correct localization of PARD3 and TIAM1 (By similarity). Potent inhibitor of angiogenesis in brain and may play a significant role as a mediator of the p53/TP53 signal in suppression of glioblastoma (PubMed:11875720).
Cellular Location	Cell membrane; Multi-pass membrane protein. Cell projection, phagocytic cup {ECO:0000250|UniProtKB:Q3UHD1}. Cell junction, focal adhesion {ECO:0000250|UniProtKB:Q3UHD1}. Cell projection, dendritic spine {ECO:0000250|UniProtKB:C0HL12}. Postsynaptic density {ECO:0000250|UniProtKB:Q3UHD1} [Vasculostatin-40]: Secreted
Tissue Location	Expressed in brain (at protein level) (PubMed:12074842, PubMed:12507886). Expressed on mononuclear phagocytes and monocyte-derived macrophages in the gastric mucosa (at protein level) (PubMed:24509909). Expressed in normal pancreatic tissue but not in pancreatic tumor tissue (PubMed:11875720). Reduced or no expression is observed in some glioblastomas (PubMed:12507886)

Background

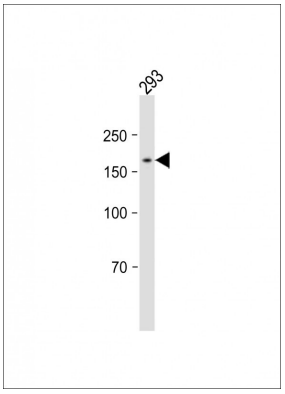
Angiogenesis is controlled by a local balance between stimulators and inhibitors of new vessel growth and is suppressed under normal physiologic conditions. Angiogenesis has been shown to be essential for growth and metastasis of solid tumors. In order to obtain blood supply for their growth, tumor cells are potently angiogenic and attract new vessels as results of increased secretion of inducers and decreased production of endogenous negative regulators. BAI1 contains at least one 'functional' p53-binding site within an intron, and its expression has been shown to be induced by wildtype p53. There are two other brain-specific angiogenesis inhibitor genes, designated BAI2 and BAI3 which along with BAI1 have similar tissue specificities and structures, however only BAI1 is transcriptionally regulated by p53. BAI1 is postulated to be a member of the secretin receptor family, an inhibitor of angiogenesis and a growth suppressor of glioblastomas.

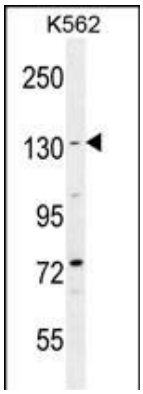
References

Kaur, B., et al., Am. J. Pathol. 162(1):19-27 (2003). Mori, K., et al., Neurosci. Res. 43(1):69-74 (2002). Duda, D.G., et al., Br. J. Cancer 86(3):490-496 (2002). Shiratsuchi, T., et al., Biochem. Biophys. Res. Commun. 247(3):597-604 (1998). Fukushima, Y., et al., Int. J. Oncol. 13(5):967-970 (1998).

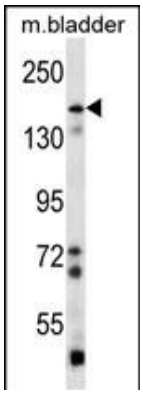
Images

All lanes: Anti-BAI1 Antibody (C-term) at 1:1000 dilution + 293 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 173. 5 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

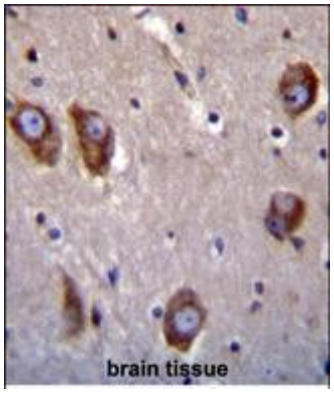




BAI1 Antibody (Q1552) (Cat. #AP8170a) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the BAI1 antibody detected the BAI1 protein (arrow).

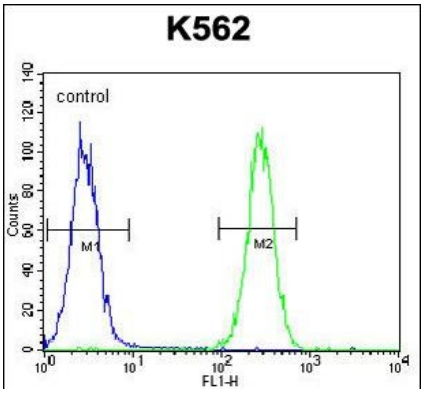


BAI1 Antibody (Q1552) (Cat. #AP8170a) western blot analysis in mouse bladder tissue lysates (35ug/lane).This demonstrates the BAI1 antibody detected the BAI1 protein (arrow).



BAI1 antibody (C-term) (Cat. #AP8170a)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of BAI1 antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

BAI1 Antibody (C-term) (Cat. #AP8170a) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- BAI1 localizes AMPA receptors at the cochlear afferent post-synaptic density and is essential for hearing
- Mice lacking full length Adgrb1 (Bai1) exhibit social deficits, increased seizure susceptibility, and altered brain development
- Novel Isoforms of Adhesion G Protein-Coupled Receptor B1 (ADGRB1/BAI1) Generated from an Alternative Promoter in Intron 17

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.